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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

COLE, LAURA C

ART UNIT PAPER NUMBER

1744

DATE MAILED: 09/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/993,134

Applicant(s)

CLUNIE, GORDON

Examiner

Laura C Cole

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-20 and 22-26 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 15 November 2000. It is noted, however, that applicant has not filed a certified copy of the 2,325,974 application as required by 35 U.S.C. 119(b).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "2" has been used to designate both a tube (Paragraphs 20 and 21, Line 2 for both) and a cap (Paragraph 22 Line 1). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because in Paragraph 32, there is references made to a "circular member 28" in Figures 7 and 9, and of a "circular member 28B" in Figure 8. None of Figures 7-9 contain a reference number "28" or "28B." However, Figure 6 displays a reference number "28" that appears to refer to a portion of conduit. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 1-15 are objected to because of the following informalities:

Claim 1 Line 3 recites "the cap defining a hole". It is unclear to the examiner to how the cap would "define" the hole.

Claim 1 Line 5 it is unclear that the sockets are at "an inside end" of the shaft. Does this mean that the sockets are within the shaft or just at an end? In the drawings it appears that the sockets are within the mounting "18" (See Figure 3).

Claim 1 Line 6 recites "each socket *extending* outward from the shaft axis." It is unclear how a socket (a socket is defined as "An opening or a cavity into which an inserted part is designed to fit" according to *The American Heritage® Dictionary of the English Language, Fourth Edition, Copyright © 2000 by Houghton Mifflin Company.*)

Claim 4 Line 1 recites "the channel is defined by the cap". It is unclear to the examiner to how the cap would "define" the channel.

Appropriate correction is required.

5. Claims 16-26 are objected to because of the following informalities:

Claim 16 Line 3 recites "the cap defining a hole". It is unclear to the examiner to how the cap would "define" the hole.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 9-10, 13, 14, 16-19, 22, 23, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Deacon et al., USPN 3,041,647.

Deacon et al. disclose the claimed invention including a cap (17) that rests over a hole (11, see Figure 1), a shaft (18 or 21 or 27), sockets (portions between legs (22) where cutters are kept, Figure 3) spaced exterior to the shaft (Figure 3), a cutter base slidably mounted in each socket (23), each cutter base movable from a retracted position (Column 2 Lines 22-38), a conduit through the shaft (Column 2 Lines 58-65) wherein an inside end is connected to each socket (Figure 1), a cutter attached to an outer end of each cutter base (24), and a drive operative to rotate the shaft (30). There is an outside end for attachment to a fluid source (41) having an inside end for supplying the pressurized fluid to an interior of a tube (42 or 52). The cap is substantially covering the end of the tube (Figure 1). The channel is provided by conduit (42 or 52) to an exterior of an inner portion of the shaft (Figure 1). The cutters are offset along the axis of the shaft (Figures 1 and 3). The cutter is a circular member mounted about a cutter axis generally parallel to the axis shaft (Figure 3 (24)). There is a cutter mounting member (20) mounted on the inside end of the shaft (Figure 3) and additionally defining the sockets. The cutters are equally spaced about the exterior of the shaft (Figure 3). There is a feed drive for advancing the cutters comprising of a piston system (Column 3 Lines 9-17). The bias force is exerted against a bottom of the cutter base (at joints shown in Figure 3, Column 2 Lines 30-35).

7. Claims 16, 22, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hyland, USPN 2,348,132.

Hyland discloses the claimed invention including a cap (21), a shaft (10) mounted in the hole (Column 2 Lines 28-30), a plurality of cutters extending outwardly (12) from the shaft and having springs (14) for retraction, means to connect a fluid source to provide a bias force acting on each cutter (Column 2 Lines 30-31 wherein the fluid source is "flushed by alcohol" and the bias force is due to the friction change when the alcohol is flushed through, see Column 2 Lines 44-48), and a drive operative to rotate the shaft as the shaft slides along the hole (Column 2 Lines 28-30). The cutters are offset along the axis of the shaft and are equally spaced about the exterior of the shaft (Figure 3.)

8. Claims 16 and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Muehl, USPN 1,402,786.

Muehl discloses the claimed invention including a cap (40), a shaft slidably and rotatably mounted in the hole (18), a plurality of cutters (45) extending outwardly spaced around the exterior of the shaft, each cutter movable in a retracted position (see Figure 4), means to connect a pressurized fluid source to provide a bias force ("oil or other liquid" Page 2 Lines 74-96), and drive (23, 24, and 9). The cutters are offset along the axis of the shaft and are equally spaced about the exterior of the shaft (Figures 1-2.) Further, the cutter is a circular member generally parallel to the shaft axis (Figure 2), wherein the circular member is a circular blade having a sharpened and notched outer periphery (Figure 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deacon et al., USPN 3,041,647 in view of Forsyth et al., USPN 526,997.

Deacon et al. disclose all elements above, however does not disclose that the cutters have a sharpened, notched, outer periphery.

Forsyth et al. displays a cutter arrangement similar to that of Deacon et al. (Figure 1) and further discloses a shaft (Figure 2), a plurality of cutters (C) extending outward from an inside end of the shaft, spaced around the exterior of the shaft, movable and retractable (by arms B), means to connect pressurized fluid source to provide a bias force (Page 1 Lines 72-84), and a drive to rotate the shaft (Page 1 Lines 89-94). The circular member is a blade having a sharpened, notched periphery (Page 1 Lines 52-55). Further, the cutter is a circular member mounted about the cutter axis generally parallel to the shaft axis, wherein the cutters are offset along the axis, and further wherein the cutters are equally spaced about the exterior (Figures 1 and 2).

It would have been obvious for one of ordinary skill in the art to modify the cutters of Deacon et al. for the ones that Forsyth et al. teach so that debris may be sufficiently removed from an inside surface of a tube.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deacon et al., USPN 3,041,647 in view of Keith, USPN 1,109,533.

Deacon et al. disclose all elements above, however does not disclose that the cap is adapted to the first end of the tube using a clamp.

Keith provides a teaching of a system that has a cap (3) for a device to clean debris from a tube, and additionally has a clamp system (45) for securing the device in order to protect the user (Page 3 Lines 42-47).

It would have been obvious for one of ordinary skill in the art to modify Deacon et al. and attach the cap of the device to the end of a tube using a clamp as Keith teaches so that the user protected and the device is sufficiently support.

Allowable Subject Matter

11. Claims 5-8 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (703) 305-7279. The examiner can normally be reached on Monday-Thursday, 7am - 4:30pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

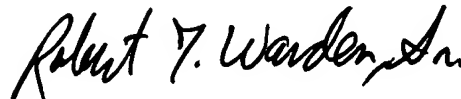
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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